

CLAIM AMENDMENTS

1 1. (Previously Amended) A cytometer apparatus comprising:
2 a rotating means adapted to receive and rotate a transparent cylinder along a
3 longitudinal axis of the transparent cylinder;
4 a light source adapted to illuminate at least a portion of said transparent cylinder
5 while the transparent cylinder is being rotated by the rotating means;
6 a detector adapted to detect a light signal provided by said light source and
7 reflected from said transparent cylinder while the transparent cylinder is being rotated
8 by the rotating means;
9 determining means for determining at least one cytometric characteristic of a
10 sample disposed in said transparent cylinder based on said light signal; and
11 a movement means for moving said transparent cylinder and said light source
12 and detector in a longitudinal axis relative to one another.

1 2. (Previously Amended) The cytometer apparatus as set forth in claim 1, wherein
2 said transparent cylinder comprises a bar code label affixed to an outer wall thereof,
3 said bar code label adapted to be interrogated by said detector means.

1 3. (Previously Amended) The cytometer apparatus as set forth in claim 1, wherein
2 said transparent cylinder has an inner wall having calibration standards affixed thereon.

1 4. (Previously Amended) The cytometer apparatus as set forth in claim 1, wherein
2 said transparent cylinder comprises an inner wall having a photoactivated crosslinker
3 affixed thereon.

5. Previously Cancelled.

6-9. Previously Cancelled Pursuant to Examiner's Restriction.

1 10. (Previously Amended) A spin cytometer, comprising:

2 a rotating means adapted to rotate a transparent cylinder about a longitudinal
3 axis of the transparent cylinder;

4 a light source adapted to illuminate at least a portion of the transparent cylinder
5 while the transparent cylinder is being rotated by the rotating means;

6 a detector means for detecting a light signal generated by the light source and
7 reflected from the transparent cylinder while the transparent cylinder is being rotated
8 by the rotating means;

9 determining means for determining at least one cytometric characteristic of a
10 sample disposed in said transparent cylinder based on said detected light signal; and

11 a movement means for moving the transparent cylinder and the light source and
12 detector means in relative motion.

1 11. (Previously Added) The spin cytometer of claim 10, wherein the rotating means
2 is further adapted to sequentially rotate a transparent cylinder in two (2) directions.

12. (Currently Cancelled)

1 13. (Currently Amended) The spin cytometer of claim 10, wherein the rotating
2 means is adapted to rotate a transparent cylinder comprising:

3 a closed end;

4 an open end;

5 a cell guide member having a first side oriented toward the open end, a second
6 side oriented toward the closed end, and a passage from the first side to the second
7 side; and

8 a cap adapted to seal the open end.

- 1 14. (Previously Added) The spin cytometer of claim 13, wherein the passage is
2 smaller at said first side than it is at said second side.
- 1 15. (Previously Added) The spin cytometer of claim 14, wherein the passage is
2 substantially smaller than the diameter of said transparent cylinder.
- 1 16. (Previously Added) The spin cytometer of claim 13, wherein the closed end has a
2 smaller outside diameter than the open end.
- 1 17. (Previously Added) The spin cytometer of claim 13, wherein said transparent
2 cylinder comprises a polystyrene cylinder.
- 1 18. (Previously Amended) The spin cytometer of claim 13, wherein an inner wall of
2 said transparent cylinder comprises an organic photoreceptor material affixed thereon.
- ① 1 19. (Previously Amended) The spin cytometer of claim 18, wherein the organic
2 photoreceptor material is activated by a wave length of approximately 300 nanometers
3 to approximately 800 nanometers.
- 1 20. (Previously Added) The spin cytometer of claim 19, wherein the organic
2 photoreceptor material comprises dibromo anthanthrone.
- 1 21. (Previously Added) The spin cytometer of claim 10, wherein the rotating means
2 comprises a stepper motor.
- 1 22. (Previously Added) The spin cytometer of claim 10, wherein the light source
2 comprises a light emitting diode.

1 23. (Previously Amended) The spin cytometer of claim 22, wherein the light emitting
2 diode is adapted to emit a light having a wavelength of between approximately 300
3 nanometers and 800 nanometers.

1 24. (Previously Amended) The spin cytometer of claim 10, wherein the detector
2 means further comprises an analog to digital converter.

1 25. (Currently Amended) The spin cytometer of claim 24, wherein the detector
2 means further comprises [:an analog to digital converter; and] a processing means for
3 associating a location identifier with an analog to digital converter output value, the
4 location identifier identifying a location on a surface of the transparent cylinder at which
5 the digital to analog value was obtained.

1 26. (Previously Amended) The spin cytometer of claim 10, further comprising an
2 additional one (1) or more light sources, each light source adapted to illuminate at least
3 a portion of the transparent cylinder.

D' 1 27. (Previously Added) The spin cytometer of claim 26, wherein each of the
2 additional one (1) or more light sources are adapted to emit a different wavelength.

1 28. (Previously Added) The spin cytometer of claim 10, further comprising at least
2 one diffraction grating.

1 29. (Previously Amended) The spin cytometer of claim 10, wherein the detector
2 means comprises a photomultiplier.

1 30. (Previously Amended) The spin cytometer of claim 10, wherein the detector
2 means comprises a charge coupled device.

1 31. (Previously Amended) The spin cytometer of claim 27, further comprising an
2 additional one (1) or more detector means, each detector means responsive to a light
3 signal generated by one of the light sources.

32. Previously Cancelled.

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1 33. (Previously Added) The spin cytometer of claim 10, wherein the movement
2 means moves the transparent cylinder in a direction substantially parallel to the
3 transparent cylinder's longitudinal axis.

1 34. (Previously Added) The spin cytometer of claim 10, wherein the movement
2 means moves the light source and detector means in a direction substantially parallel to
3 the transparent cylinder's longitudinal axis.
